

**ABSTRACT**

The problem solved by this invention is the definition of a well defined approach for creating lightpaths that uses a combination of both operator directed routing and automatic routing and allows the operator to change, at any point during the creation of the lightpath, the wavelength for any segment of the path. The key advantage of this approach is that it allows the operator to customize the lightpath to suit special end-customer needs or special networking requirements. The operator can utilize automatic routing algorithms to provide recommended wavelength selections and routing then, in the same operation, manually reject and select different wavelengths for some or all of the wavelengths in the lightpath.